# Human Thrombopoietin R / TPO R Protein, His Tag (MALS & SPR verified)

Catalog # THR-H52H7



## **Synonym**

MPL,C-MPL,CD110,MPLV,THCYT2,TPOR

### **Source**

Human Thrombopoietin R, His Tag(THR-H52H7) is expressed from human 293 cells (HEK293). It contains AA Gln 26 - Trp 491 (Accession # P40238-1). Predicted N-terminus: Gln 26

#### **Molecular Characterization**

TPO R(Gln 26 - Trp 491) P40238-1

Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 54.4 kDa. The protein migrates as 60-66 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

#### **Endotoxin**

Less than 1.0 EU per  $\mu g$  by the LAL method / rFC method.

## **Purity**

>95% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

#### **Formulation**

Lyophilized from 0.22  $\mu m$  filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

#### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

### Storage

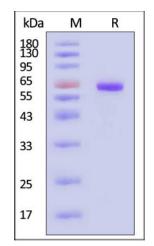
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

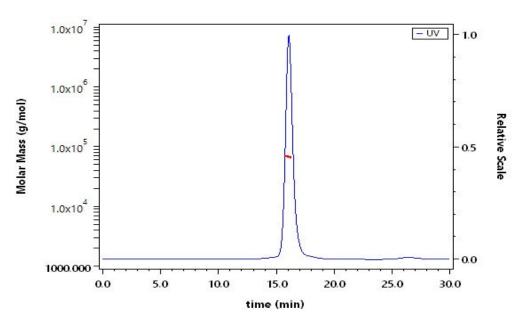
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

# SDS-PAGE



Human Thrombopoietin R, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

## **SEC-MALS**



more than 95% and the molecular weight of this protein is around 60-74 kDa verified by SEC-MALS.

Report

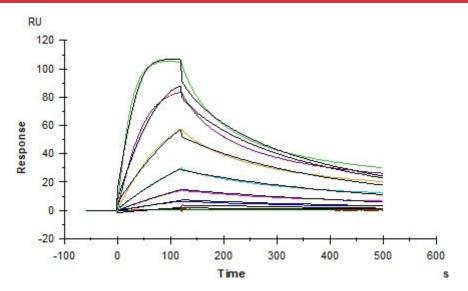
# **Bioactivity-SPR**



# Human Thrombopoietin R / TPO R Protein, His Tag (MALS & SPR verified)







Human Thrombopoietin R, His Tag (Cat. No. THR-H52H7) captured on CM5 Chip via anti-His antibody can bind Human Thrombopoietin, Tag Free with an affinity constant of 2.32 nM as determined in SPR assay (Biacore T200) (QC tested).

# **Background**

Thrombopoietin R, also known as TPO-R, is expressed predominantly on the surface of MKs, platelets, hemangioblasts, and hematopoietic stem cells (HSCs). Binding of TPO to the megakaryocyte TPO-R leads to different effects: prevention of megakaryocyte apoptosis; increased megakaryocyte number, size, and ploidy; increasing rate of megakaryocyte maturation; and internalization of the TPO/TPO-R complex. Thrombopoietin R involved in multiple signal transduction pathways, such as JAK, STAT, and MAP kinase.

